

## Claims

1 1. A process for making muntin bars comprising the steps of:

2 a) providing an elongated preformed muntin bar member having an exposed surface  
3 having a treated portion;

4 b) providing an elongated strip of covering material for controlled application onto a  
5 specified portion of the treated portion of the muntin bar member, said elongated strip of covering  
6 material including an adhesive for adhering the covering material to the muntin bar member; and

7 c) bringing the muntin bar member and the covering material into contact with each other  
8 to cause the covering material to overlie and adhere to the muntin bar member.

2. The process for making muntin bars of claim 1 wherein the muntin bar member is precut to a length chosen for use in a muntin bar grid before the covering material is applied to said muntin bar member.

3. The process for making muntin bars of claim 2 wherein the muntin bar member includes a notch that defines an intersection region with another muntin bar member which is cut into the muntin bar member before the covering material is applied to said muntin bar member.

4. The process of claim 1 additionally comprising applying a coating to muntin bar material by painting an elongated strip of muntin bar stock material, roll forming said strip to form said a preformed generally hollow muntin bar member and bringing the covering material into contact with a painted portion of the muntin bar material.

5. The process of claim 1 wherein the elongated strip of covering material is a multilayered foil and wherein one layer is an adhesive, a second layer is a plastic film carrier, and a third layer is a release layer and further comprising the step of applying a controlled pressure as the multilayered foil is brought into contact with the muntin bar member to cause the adhesive layer to bond to the

muntin bar member.

6. The process of claim 5 additionally including applying heat to a region of contact between the covering material and the muntin bar material.

7. The process of claim 4 wherein one entire side of the elongated muntin bar member is painted to provide a painted surface and wherein one half of said painted surface is covered with the elongated strip of covering material to form a muntin bar member.

8. The process of claim 4 wherein an outer surface of a strip of material is painted prior to being bent into a generally hollow muntin bar member and wherein both sides of the bar member are covered with a covering layer by the step of passing the muntin bar member along a coating travel path to cover one side of the muntin bar member and then passing the muntin bar member along said coating travel path to cover a second side of the muntin bar member.

9. The process of claim 4 wherein the foil is pressure treated along a side surface by side rollers causing the foil to separate from a carrier layer.

10. A system for making muntin bars comprising:

a) a conveyor for moving elongated preformed muntin bar members that have been treated on at least a portion of an exposed surface;

b) a supply of an elongated strip of covering material for controlled application onto a specified portion of a surface of a muntin bar member, said covering material comprising an adhesive for adhering the covering material to a muntin bar member;

c) a drive system for moving the covering material into contact with the preformed muntin bar members to cause the covering material to overlie and adhere to a surface of the muntin bar member; and

d) a pressure roll that applies pressure to a region of engagement between the muntin bar

11 members and the covering material.

11. The system of claim 10 further comprising a heater for heating the muntin bar member prior to its arrival at a contact region with the covering material.

12. The system of claim 10 comprising a pressure roll that is heated by a source of heat to elevate a temperature of the muntin bar member and the covering material.

13. The system of claim 10 further comprising a cooling tunnel to cool a combined muntin bar member and covering material downstream from a contact region between the muntin bar member and the covering material.

14. The system of claim 10 wherein the covering material is a multiple layer material including a carrier layer which is separated from one or more other layers of said strip of covering material and further comprising a recoiler for winding the carrier layer subsequent to application of the covering layer to the muntin bar member.

15. The system of claim 10 further comprising one or more guide rollers for maintaining side to side registration of the elongated preformed muntin bar member with the elongated strip of covering material in a region of contact between the covering material and said muntin bar member.

1 16. A process for making multiple two tone muntin bars for a muntin bar grid comprising the  
2 steps of:

3 a) providing a series of elongated muntin bar members that have been cut to a length  
4 suitable for inclusion into a muntin bar grid, which has been treated on an outer surface, and  
5 feeding the muntin bar members along a travel path;

6 b) providing an elongated strip of covering material for controlled application onto a

7 specified portion of the outer surface of the muntin bar member, said elongated strip of covering  
8 material including an adhesive for adhering the covering material to the muntin bar member; and  
9 c) bringing the covering material into contact with the muntin bar members as they move  
10 along their travel path to cause the covering material to overlie and adhere to the muntin bar  
11 members to form a series of elongated preformed muntin bars which are subsequently assembled  
12 into a muntin bar grid.

17. The process of claim 16 additionally comprising applying a coating to the elongated muntin bar material by painting a piece of elongated muntin bar material, bending the muntin bar material into an elongated muntin bar stock material and cutting the muntin bar grids from the elongated muntin bar stock material.

18. The process of claim 17 wherein the elongated strip of covering material is a multilayered foil and wherein one layer is an adhesive, a second layer is a plastic film carrier, and a third layer is a release layer and further comprising the step of applying a controlled pressure as the multilayered foil is brought into contact with the muntin bar member to cause the adhesive layer to bond to the muntin bar member.

19. The process of claim 18 additionally including applying heat to a region of contact between the covering material and the muntin bar material.

20. The process of claim 19 wherein one entire side of the elongated muntin bar material is painted and after bending of the muntin bar material into an elongated muntin bar member, one half of said painted surface is covered with the elongated strip of covering material to form a two tone muntin bar member which is cut into multiple muntin bars that form a grid.